

Remarks

Claims 78, 79 and 86-97 are pending. Claims 1-77, 80-85 and 98-106 have been cancelled without prejudice or disclaimer. Claims 78, 79, 86-94, and 96 have been amended. Support for the claim amendments can be found through the specification including, for example, on pages 17, 49, 54 and 63.

Election/Restrictions

Applicants have cancelled claims 99-106 without prejudice or disclaimer.

Information Disclosure Statement

Applicants thank the Examiner for the return of the signed information disclosure statement.

35 U.S.C. § 112, first paragraph (Indefiniteness)

The Examiner rejected claims 86 and 91 as indefinite because, in the view of the Examiner, commercial variety designations are arbitrary and create ambiguity in the claims. While Applicants disagree, to facilitate prosecution claims 86 and 91 have been amended to delete reference to any commercial variety designation.

The Examiner has rejected claim 86 as indefinite because the term “screening” is indefinite. While Applicants disagree, to facilitate prosecution, claim 86 is amended to recite “screening with one or more nucleic acid markers a population of soybean plants formed by a cross of said first and said second soybean plant and selecting a soybean plant” The Examiner further rejected claims 79-90 and 92-98 as indefinite as they did not, in the Examiner’s opinion, obviate the indefiniteness of claims 78, 86 or 91. As the basis for the Examiner’s rejections are now rendered moot, Applicants respectfully request reconsideration of the indefiniteness rejection.

35 U.S.C. § 112, first paragraph (Written Description)

The Examiner rejected claims 78-98 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner asserted that as Applicants “only describes SNPs and INDEL mutations relative to a single reference soybean line ... it is unclear that Applicant has adequately described nucleic acid markers to identify an rhg1 SCN resistant ... [and that the] evidence in Table 1 of the specification does not describe the structure of the primers, only their names (see page 17 of the specification).” Applicants disagree.

At the outset, the Examiner’s factual assertion that the structure of the primers are not disclosed is in error. The nucleic acid sequences of all the primers is provided as well as the position of the primers. The Examiner’s attention is drawn to Table 1, pages 25-40 and SEQ ID NOS: 401-1096. Moreover, Applicants provided SNPs and INDEL mutations in multiple backgrounds. *See*, Specification, for example, Table 2 at pages 44-45. The Examiner also asserts that the claims lack written description because they recite PI200499 and PI407922 as these introductions may lack an rhg1 SCN resistant allele. While Applicants disagree that the claims lack written description because of such a recitation, the amended claims do not recite PI200499 and PI407922.

In light of the above, the Applicants respectfully request that the Examiner withdraw the written description rejection.

35 U.S.C. § 112, first paragraph (Enablement)

The Examiner has rejected claims 78-98 under 35 U.S.C. § 112, first paragraph, for failing to comply with the enablement requirement. At the outset, Applicants wish to draw the Examiner’s attention to the issue that soybean cyst nematode resistance in a plant is a quantitative trait and that the present specification has provided multiple polymorphic markers capable of being used in conjunction with, for example, software such as Qgene, Version 2.23 (*see*, Specification, page 62, lines 21-23) to introgress an rhg1 resistant allele. As such, the Applicant respectfully submits that the Examiner’s focus on the fact that “the reference line

‘A3244’ and resistant line ‘Peking’ have a G at SNP position 45173 relative to SEQ ID NO: 2, even though susceptible line ‘Noir’ has an A at said position” is an inappropriate focus. That said, to facilitate prosecution, Applicants have amended independent claims 78 and 86 to delete that the rhg1 SCN resistant allele or plant respectively must be selected. Moreover, Applicants have amended independent claim 91 to recite that the rhg1 resistant allele corresponds to an rhg1 SCN resistant allele present in Peking.

The Examiner further contends that soybean lines A2869 and AG 4301 were not publicly available and that soybean lines PI200499 and PI407922 lacked an rhg1 SCN resistant allele. Applicants respectfully disagree but, in light of Applicants’ amendment of claims 78, 86 and 91, Applicants respectfully submit that the basis of the Examiner’s rejection is rendered moot.

In light of the above, Applicants respectfully request that the Examiner withdraw the enablement rejection.

325 U.S.C. §§ 102(e)/103(a)

The Examiner rejected claims 78 and 79 under 35 U.S.C. § 102(e) as anticipated or obvious over Lightfoot *et al.* (U.S. patent 6,300,541). The Examiner asserts that Lightfoot *et al.* teaches using a descendant of Forrest in combination with SATT309 prior to ingressing into a non-resistant soybean rhg1. Applicants disagree that Lightfoot *et al.* anticipates or renders obvious either claim 78 or claim 79. Whatever else Lightfoot *et al.* might teach, it clearly does not teach or suggest a method that is capable of determining if one or more soybean plants from a segregating population contains a deletion of 19 nucleotides at position 488881 of SEQ ID NO: 2. As such, Applicants respectfully request that the Examiner withdraw the 35 U.S.C. §§ 102(e)/103 rejection.

Conclusion

In view of the above, each of the presently pending claims is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding objection and rejections of the claims, and to pass this application to issue. The Examiner is encouraged to contact the undersigned at (202) 942-5068 should any additional information be necessary for allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "D. R. Marsh". The signature is fluid and cursive, with the first name "D" being particularly large and stylized.

David R. Marsh (Reg. No. 41,408)
Rachel L. Adams (Reg. No. 54,660)

ARNOLD & PORTER LLP
555 Twelfth Street, N.W.
Washington, D.C. 20004-1206
(202) 942-5000 telephone
(202) 942-5999 facsimile

Date: July 22, 2005

Correspondence Address:

MONSANTO COMPANY
800 N. Lindbergh Blvd.
Mailzone E2NA
St. Louis, MO 63167
(314) 694-3602 telephone
(314) 694-9009 facsimile